

Prüfbericht-Nr.: Test report no.:	CN22WMZD 008	Auftrags-Nr.: Order no.:	168459266	Seite 1 von 10 Page 1 of 10
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2024-01-02	
Auftraggeber: Client:	SZ DJI TECHNOLOGY CO., LTD Lobby of T2, DJI Sky City, No. 53 Xianyuan Road, Xili Community, Xili Street, Nanshan District, Shenzhen, China			
Prüfgegenstand: Test item:	DJI Mini 2 SE			
Bezeichnung / Typ-Nr.: Identification / Type no.:	MT2SD (Trademark: DJI)			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	47 CFR FCC Part 2.1091			
Wareneingangsdatum: Date of sample receipt:	2024-01-03	Please refer to Photo Document		
Prüfmuster-Nr.: Test sample no.:	A003634191-006~008			
Prüfzeitraum: Testing period:	2024-01-08 - 2024-01-24			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:			genehmigt von: authorized by:	
Datum: Date:	2024-03-06	Signed by: Bell Hu	Ausstellungsdatum: Issue date:	2024-03-06
			Signed by: Jonathan Li	
Stellung / Position:	Sachverständige(r)/Expert		Stellung / Position:	Sachverständige(r)/Expert
Sonstiges / Other:	Based on original report CN22WMZD 004 applying for Class 2 permissive change. FCC ID: SS3-MT2SD22			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet			
* Legend:	P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested			
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

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Anmerkungen
Remarks

1	Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden. <i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i>
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3	Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt. <i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i> <i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i>
4	Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019. <i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i>

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TEST SUMMARY

3.1.1 RF EXPOSURE COMPLIANCE
RESULT: Pass

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1. Test Sites

1.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.
No. 362 Huanguan Road Middle, Longhua District, Shenzhen 518110, P.R. China

FCC Accreditation Designation No.: 694916
ISED wireless device testing laboratory: 25069

1.2 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

1.3 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

1.4 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendixes of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

1.5 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. facility located at No. 362 Huanguan Road Middle, Longhua District, Shenzhen 518110, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

2. General Product Information

2.1 General Description

The EUT (Equipment Under Test) is a DJI Mini 2 SE. It supports 2.4GHz SDR, 5.8GHz SDR and GNSS functions.

*Remark: SDR means specific defined radio and cannot changes radio specification via software/firmware by end-users.

For details refer to the User Manual, Technical Description and Circuit Diagram.

2.2 Rating and System details

Table 1: Rating of EUT

General Information of EUT	Value
Kind of Equipment	DJI Mini 2 SE
Type Designation	MT2SD
Operating Voltage	AC 100-240V, 50/60Hz input via AC/DC adapter or Battery operated (Max 7.7V, 2250 mAh)
FCC ID	SS3-MT2SD22
Testing Voltage	Full battery (DC 7.7V)
Extreme Temperature Range	0°C ~ 40 °C
Radiofrequency operating mode	1) 2.4GHz SDR: operating within 2400-2483.5MHz, supports 1.4MHz/3MHz/10MHz/20MHz Bandwidth 2) 5.8GHz SDR: operating within 5725-5850MHz, supports 1.4MHz/3MHz/10MHz/20MHz Bandwidth 3) GNSS (receiver): 1559-1610MHz

Table 2: Technical Specification of EUT

Technical Specification of 2.4GHz SDR	
Operating Frequency	2407.5-2465.5MHz for 1.4MHz Bandwidth 2409.12-2467.12MHz for 1.4MHz Bandwidth (CA mode) 2417.5-2456.5MHz for 3MHz Bandwidth 2405.5-2476.5MHz for 10MHz Bandwidth 2410.5-2472.5MHz for 20MHz Bandwidth
Type of Modulation	OFDM (QPSK, 16QAM, 64QAM)
Channel Number	30 channels for 1.4MHz Bandwidth 30 channels for 1.4MHz Bandwidth (CA mode) 14 channels for 3MHz Bandwidth 72 channels for 10MHz Bandwidth 63 channels for 20MHz Bandwidth
Channel Separation	2MHz for 1.4MHz Bandwidth 2MHz for 1.4MHz Bandwidth (CA mode) 3MHz for 3MHz Bandwidth 1MHz for 10MHz Bandwidth 1MHz for 20MHz Bandwidth

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Antenna Type	Integral Antenna
Antenna Number	2 Antennas, only 1TX2RX mode supported.
Antenna Gain	2.5 dBi
Technical Specification of 5.8GHz SDR	
Operating Frequency	5728.5-5844.5MHz for 1.4MHz Bandwidth 5730.12-5846.12MHz for 1.4MHz Bandwidth (CA mode) 5730.5-5844.5MHz for 3MHz Bandwidth 5732.5-5844.5MHz for 10MHz Bandwidth 5735.5-5839.5MHz for 20MHz Bandwidth
Type of Modulation	OFDM (QPSK, 16QAM, 64QAM)
Channel Number	59 channels for 1.4MHz Bandwidth 59 channels for 1.4MHz Bandwidth (CA mode) 39 channels for 3MHz Bandwidth 113 channels for 10MHz Bandwidth 105 channels for 20MHz Bandwidth
Channel Separation	2MHz for 1.4MHz Bandwidth 2MHz for 1.4MHz Bandwidth (CA mode) 3MHz for 3MHz Bandwidth 1MHz for 10MHz Bandwidth 1MHz for 20MHz Bandwidth
Antenna Type	Integral Antenna
Antenna Number	2 Antennas, only 1TX2RX mode supported.
Antenna Gain	3.5dBi

3. Test Results

3.1 Transmitter Requirements & Test Suites

3.1.1 RF Exposure Compliance

RESULT:
Pass

Test standard : FCC Part 1.1091
Limit : Table 1 of 47 CFR FCC Part 1.1310
Kind of test site : Shielded room

This device is mobile device, and the applicant declares that the minimum separation distance is greater than 20cm. Therefore MPE measurement or computational modelling should be used to determine compliance.

MPE Calculation is based on the conducted power and considering maximum power and Antenna gain. The following formula is used to MPE evaluation.

$$Pd = \frac{P_{out} * G}{4R^2\pi}$$

Where

P_d = power density in mW/cm² or W/m²

P_{out} = output power to antenna in mW or W

G_{num} = Antenna gain in numeric

π = 3.14159

R = Distance between observation point and the center of radiator in cm or m

3.1.1.1 FCC Part 1.1310, Part 2.1091

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

Table 3: Test Results of RF Exposure Calculations for FCC, Stand-alone mode

Operating Mode	Max. EIRP incl. tune-up (dBm)	Distance (cm)	MPE (mW/cm ²)	Limit (mW/cm ²)	Verdict
2.4GHz SDR	24.00	20	0.0500	1.0	Pass
5.8GHz SDR	26.00	20	0.0792	1.0	Pass

Note:

1. The 2.4GHz SDR and 5.8GHz SDR mode of EUT cannot transmitting simultaneously.
2. 2.4G SDR and 5.8GHz SDR RF Output Power: Refer to test report CN22WMZD 006 & CN22WMZD 007.
3. EIRP= Conducted power +Directional Gain

Test Results of RF Exposure Calculations for FCC, Simultaneous mode

N/A, simultaneous mode not supported.

4. List of Tables

Table 1: Rating of EUT 6
Table 2: Technical Specification of EUT 6
Table 3: Test Results of RF Exposure Calculations for FCC, Stand-alone mode 9